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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/824,892

04/15/2004

Etienne de Fontenay

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08/02/2006

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EXAMINER

WILLIAMS, THOMAS J

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/824,892	DE FONTENAY ET AL.	
	Examiner	Art Unit	
	Thomas J. Williams	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-6 and 10-18 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 5, 2006 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4-6, 10-13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,172,894 to Hein et al.

Re-claim 1, Hein et al. disclose a hydroelastic joint comprising: an external reinforcement 8; an internal reinforcement 10, each has a longitudinal axis, the assembly forms a hydroelastic joint disposed between the reinforcements in order to permit a relative transverse displacement (due to recess portions 11 and 12), the assembly comprises a first elastically deformable element 7 shaped to form a sealed volume 19 containing damping fluid, a second elastically deformable element 6 is disposed the assembly forming the hydroelastic joint and the internal reinforcement 10, the second elastically deformable element has a longitudinal dimension (such as the portions between recesses 11 and 12) less than a corresponding longitudinal dimension of the first elastically deformable element, this will limit a transverse deformation of the first elastically

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deformable element during relative tilting of the longitudinal axes of the reinforcements about at least one transverse tilting axis, an intermediate reinforcement 15 is disposed between the first and second elastically deformable elements, the first 7 and second 6 elastically deformable elements adhering on a central portion with a constant cross section of the intermediate reinforcement, the second elastically deformable element 6 adhering on a central portion with a cross section of the internal reinforcement 10.

Re-claim 4, the first elastically deformable element 7 has two end walls defining the sealed chamber, a peripheral reinforcement 16 provides added rigidity.

Re-claim 5, the end walls connect in a sealed manner the intermediate and external reinforcements to define the sealed volume, the first elastically deformable element is fixed to the intermediate and external reinforcement.

Re-claim 6, the sealed volume is divided into two chambers, see figure 1, the chambers communicate with each other via channel 21.

Re-claim 10, Hein et al. disclose a hydroelastic joint comprising: an external reinforcement 8; an internal reinforcement 10, each has a longitudinal axis, the assembly forms a hydroelastic joint disposed between the reinforcements in order to permit a relative transverse displacement (due to recess portions 11 and 12), the assembly comprises a first elastically deformable element 7 shaped to form a sealed volume 19 containing damping fluid, a second elastically deformable element 6 is disposed the assembly forming the hydroelastic joint and the internal reinforcement 10, the second elastically deformable element has a longitudinal dimension (such as the portions between recesses 11 and 12) less than a corresponding longitudinal dimension of the first elastically deformable element, this will limit a transverse

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deformation of the first elastically deformable element during relative tilting of the longitudinal axes of the reinforcements about at least one transverse tilting axis, a rigidity of the second elastically deformable element 6 is less in at least one second transverse direction (along a direction containing recess 11 or 12), this defines a preferentially transverse tilting axis for the relative tilting of the axes of the external and internal reinforcements.

Re-claim 11, the sealed volume 19 is divided into at least two opposite chambers according to a first transverse direction defining a hydraulic damping direction of the spring, the first transverse direction and the second transverse direction are parallel.

Re-claim 12, the sealed volume 19 is divided into at least two opposite chambers according to a first transverse direction defining a hydraulic damping direction of the spring, the first transverse direction and the second transverse direction form an angle. The angle can be any angle such as 0 degrees to about 90 degrees depending upon the relative angle of the central mount structure and the external mount structure of the vehicle.

Re-claim 13, the second elastically deformable element has at least two cells 11 and 12 are substantially longitudinal and opposite in the second transverse direction.

Re-claim 16, the external reinforcement contacts at least one of the structures and will prevent deformation of the joint beyond a prescribed amplitude limit.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 17 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Hein et al.

Re-claim 17 and 18, Hein et al. fail to teach the hydroelastic joint used in combination with a vehicle axle. However, it is known in the art to use hydroelastic joints, as noted by the applicant, in combination with vehicle axles as support structures. It would have been obvious to one of ordinary skill in the art to have utilized the joint of Hein et al. in combination with a vehicle axle as warranted, thus providing a joint with an easy means by which to alter the spring rate as necessary. The spring rate of the joint taught by Hein et al. is easily modified by varying the size of the recess portions 11 and 12, see column 2 lines 1-5.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hein et al. in view of US 6,622,996 to Mayerbock et al.

Hein et al. fail to teach the first and second elastically deformable elements being obtained in a single moulding step. Mayerbock et al. teach a hydroelastic joint in which the first and second elastic elements are obtained in a single moulding step, thus saving manufacturing time. It would have been obvious to one of ordinary skill in the art when having manufactured the assembly of Hein et al. to have done so such that the first and second elastic elements would

have been obtained in a single moulding step as taught by Mayerbock et al., thus reducing manufacturing time and costs.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hein et al. in view of US 5,301,414 to Gautheron.

Re-claim 15, the internal reinforcement has a tubular shape. However, Hein et al. fail to teach an enlarged portion located at least at one end of the internal reinforcement. Gautheron teach a joint with an internal reinforcement 10/11 with an enlarged end portion 6 used to provide an annular reinforcement for the adjacent elastomeric element. It would have been obvious to one of ordinary skill in the art to have provided the internal reinforcement of Hein et al. with an enlarged end support surface as taught by Gautheron, thus providing an additional support surface for the adjacent elastic member.

Allowable Subject Matter

9. Claims 7-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments with respect to claims 1 and 4-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128.

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The examiner can normally be reached on Tuesday from 1:00 PM to 7:00 PM and Wednesday-Friday from 6:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan, can be reached at 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

July 27, 2006

**THOMAS J. WILLIAMS
PRIMARY EXAMINER**

Thomas Williams
AU 3683
7-27-06